

ComCARE Alliance

Communications for Coordinated Assistance and Response to Emergencies

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**Before the United States Department of Transportation
Washington, D.C.**

**In the Matter of
Security Requirements for Motor Carriers
Transporting Hazardous Materials**

**Advance Notice of Proposed Rulemaking
Docket No. FMCSA-02-11650 (HM-232A)**

**Comments of the Hazardous Materials Emergency
Communications Working Group
of the ComCARE Alliance**

November 15, 2002

**Before the United States Department of Transportation
Washington, D.C.**

In the Matter of:)	
)	
Security Requirements)	Docket No. FMCSA-02-11650
for Motor Carriers)	
Transporting Hazardous)	(HM-232A)
Materials)	

**Comments of the Hazardous Materials Emergency Communications
Working Group of the ComCARE Alliance**

The Federal Motor Carrier Safety Administration (FMCSA) and the Research and Special Programs Administration (RSPA) have released an advance notice of proposed rulemaking (ANPRM) seeking to determine the “feasibility of imposing specific security requirements” on commercial carriers of hazardous materials.¹ The ANPRM identified six areas in which the United States Department of Transportation (DOT) may propose rules: notification of emergency responders, escorts, vehicle tracking, anti-theft devices, operational measures, and safe havens. The Hazardous Materials Emergency Communications Working Group of the ComCARE Alliance (Working Group) respectfully submits its comments in response to this ANPRM.

Background

The ComCARE Alliance is a diverse not-for-profit, public/private coalition of 90 organizations. These span the full range of emergency response and mitigation agencies, medical organizations, citizen groups, and technology, transportation, and telecommunications companies.² Our Alliance is dedicated to improving emergency response and mitigation communications and information systems. Through our activities and from our members, we have understood the power of joining commercial technologies and motivations with public safety needs.

¹ Security Requirements for Motor Carriers Transporting Hazardous Materials, *Advance Notice of Proposed Rulemaking*, Docket No. FMCSA-02-11650 (HM-232A), pub. July 16, 2002 (Advance Notice).

² See Appendix C: ComCARE Alliance membership list.

I. Hazardous Materials Emergency Communications Working Group

The ComCARE Alliance has convened a Hazardous Materials Emergency Communications Working Group (WORKING GROUP) consisting of public safety officials from around the country of diverse professions and jurisdictions, to address policy issues stemming from the communications and information technology intersections of emergency response and mitigation agencies and commercial entities. The Working Group has developed comments to respond to the ANPRM. The comments are based on discussions of the Working Group over the past three months. Robert Oenning, a director of ComCARE, chairs the Working Group³. It includes representatives of state police, state Emergency Medical Systems (EMS), local law enforcement, a variety of state, county and city fire and rescue leaders, emergency physicians, local 9-1-1, transportation, and emergency communications directors, and others. They participated in their individual capacities, and these comments are those of ComCARE and its Working Group, not necessarily those of these participants' agencies or professional organizations.

The membership of ComCARE and of our Working Group provide DOT with the kind of state and local comments we believe Executive Order 13132 was designed to elicit. The heavy majority of the Working Group is state and local officials who must coordinate the response to, or directly respond to, hazardous materials incidents in their jurisdictions. Parenthetically, we believe that this Working Group is responsive in part to the objectives of the Regulatory Flexibility Act due to the fact that a number of our participants are officials in municipalities of less than 50,000 citizens. We believe the suggestions contained herein would have an extremely positive impact “on state or local safety or environmental protection programs.”

Our comments focus primarily on those aspects of the ANPRM, specifically those regarding vehicle tracking and monitoring, emergency warning, remote capabilities and “notification to state and local authorities”.⁴ The Working Group felt most strongly about the latter.

II. Summary of Conclusions

The consensus opinion of the Working Group is that the methods used to communicate information to emergency services in response to hazardous materials incidents are outdated and dangerous, to responders and the public. The system now in place relies on notification of an incident from either a party involved or a bystander, after an incident has occurred. Little can be done to stop a truck without a crash. A call after a crash causes a dispatch to occur and the arriving emergency responder has to “size up” the situation in some way to then effectuate a more appropriate response. Without information on exact location, contents, damage and the like, the worst has to be assumed. Meanwhile, time is passing. Cleanup may be growing rapidly more expensive. Lives may be threatened. Traffic backs up.

Information must be gathered at the scene, often under difficult or dangerous circumstances, which is available to, or in possession of, the operator of the truck, the carrier, the shipper or the

³ For purposes of identification, Mr. Oenning is also 9-1-1 Director for the State of Washington, and a Director of the National Emergency Number Association, and the National Association of State Nine-One-One Administrators.

⁴ Our group had no comments on the questions posed in the ANPRM regarding escorts, operational measures, or safe havens.

intended recipient, usually in electronic form. If the information technologies available today were widely deployed, and the policies we propose herein were implemented, authorities would have a better chance of preventing hazardous materials incidents, mitigation efforts would be substantially enhanced, and responders and the public would be safer.

A. Technology Installed in Vehicles

We support and strongly encourage the installation of location and communications technology on hazardous materials transportation vehicles that will allow the real time reporting of incidents of various kinds. We are not expert on logistical economics, but the literature we have reviewed, and parties with whom we have talked, cause us to conclude that systems which provide communications and location/vehicle tracking for commercial delivery vehicles should pay for themselves through business efficiencies, particularly given the new, less expensive systems coming on the market today.⁵

We believe the safety value of such basic communications and location systems would be significantly enhanced by the addition of a few safety features and services such as a panic or Mayday button, and automatic crash or automatic incident notification. We believe these are relatively inexpensive, and should pay for themselves as well by reducing risk of loss to the trucking companies which install the systems, including losses after spills or incidents, allowing faster clean up, and improving driver safety. Additional safety and security features have other advantages and we discuss some of them below.

Government grants, tax incentives and other actions may be appropriate to encourage swift deployment of this technology. To make such decisions is not our expertise. But we believe government should work with industry to achieve the best way or ways of getting such systems deployed as rapidly as possible. As commercial reasons for installing a particular facet of the technology or service decreases, government should provide support. In addition, we believe government at all levels should set an example for industry by rapidly installing such technologies on government-owned and contracted hazardous materials vehicles.

B. Emergency Incident Information

Whenever the systems described above are installed, and there is an emergency incident, we believe DOT should require that the carrier or its vendor contemporaneously provide the complete incident data to the range of emergency response agencies that must respond to the incident.⁶

The most valuable commodity for emergency responders, both for prevention and mitigation, is accurate and timely information. Using data available with current transportation fleet communications and monitoring devices, response agencies could be made aware of a vehicle's exact location, what it is carrying, how much of that commodity, and other important information. Contemporaneously providing only that information to emergency responders would be a

⁵ See Appendix A.

⁶ We note that requiring carriers to report incidents to a plethora of federal, state and local agencies is nothing new. The issue is really the speed of this reporting, and moving it from paper after the fact to electronic information in real time.

significant improvement over the current mitigation situation. The additional information that our recommendations for increased functionality would provide (e.g. automatically reporting that a bad crash has occurred) would save even more lives and money; help clean up and clear roads faster, and improve our homeland security.

C. Vision of How System Should Work

Our group spent a good deal of time developing a vision of how the information technologies and systems should work now and in the future in this field. Here is our summary vision of how it should operate.

1. Systems. Every vehicle transporting hazardous materials would have electronic communications and location capabilities, at a minimum.
2. Incident. Incident notification to emergency response agencies could be triggered by a variety of events: a crash, a panic button, an unauthorized driver, failure of the driver to report on schedule, violation of a geo-fence line or a filed driving route.
3. Reporting. Where public agency response is required, information from and about the truck would be instantly transmitted to agencies which had requested they receive it, in a standardized format. The information system would be such that each agency could determine what types of incidents, and what information about incidents, it would receive, and whether all or part of that information should be “pushed” or “pulled.”
4. The information would include all relevant electronic information produced by the system in the truck, and available electronically from its fleet tracking vendor or from the company’s dispatcher. It would include at a minimum the truck’s identity, location, and contents.
5. Trucks would have capabilities allowing remote action to prevent or ameliorate incidents, such as driver identification technologies, systems to prevent or create an alarm for unauthorized use, systems to disable trucks when it is determined by proper authorities that they must be stopped, and the like.
6. Emergency agencies would know before they left their stations what mitigation task they faced in the field – and agencies with other responsibilities (e.g. hospitals, departments of transportation) could register to receive real time notification as well. This could include national law enforcement agencies looking for patterns as well as local entities.
7. The same information systems that deliver truck, location and contents information to responders should be used to deliver additional information such as the remediation and treatment information which organizations like ChemTrec provide verbally today.⁷

⁷ Within an Intelligent Transportation System deployment grant from Virginia Department of Transportation and the Federal Highway Administration, ComCARE is assisting a public/private partnership of its national members and safety and community leaders in the Shenandoah Valley of Virginia to deploy model emergency communications and information systems which can accomplish this vision.

III. General Comments

There was strong agreement from the Working Group that government policy should address both the use of these tracking systems for homeland security and day to day safety improvements, not just one of those. We share the consensus belief in the public safety community that systems that are not generally and routinely used will not be effectively used in emergency situations. The basic information and communications systems used by the safety community need to be the same whether it is a Hazmat event or a car crash or a sick patient, and whether those situations are created by terrorists or not. Indeed, in weighing the financial benefits of safety technologies, it is important to measure the day-to-day safety benefits, which are far more likely to be realized. We hope that terrorist events will be few and far between; it is highly unlikely that they will begin to approach the number of non-terrorist hazmat events each year.

The ANPRM is understandably focused on preventing terrorist attacks. We believe a realistic perspective will acknowledge that Government (at all levels) cannot and should not promise that it will be able to stop all those that intend to harm us. But Government can promise to do those things that are reasonable to (a) minimize the likelihood of successful attacks, and (b) respond fast and efficiently to mitigate the harm when attacks occur. We therefore suggest that an equal degree of attention be paid by DOT in this proceeding to rapid and effective response before and after emergency hazardous materials incidents of all kinds, not just stopping terrorists. We submit that such an approach is most likely to result in the best system for responding to terrorist events.

IV. Summary of Our Concerns

Hazardous materials shipments on the highway represent a significant threat to our homeland security due to the number of vehicles that are used daily for the transportation and the ubiquitous nature of commercial trucking. Trucks could become highly mobile weapons and move about our roads without detection until it is too late. This was witnessed in the aftermath of September 11th, when various people around the country were detained for possessing fraudulent commercial drivers' licenses (CDL) with hazardous materials certificates, and it was reported that some of the terrorist flying the September 11, 2001 planes had sought such licenses. And the damage caused in a hazardous materials truck crash would usually be no less if it is caused by a slick road, avoiding a passenger car, a criminal, or some other non-terrorist cause.

Somewhere, usually in disparate databases, and usually electronically, the following information exists about vehicles and vessels that carry hazardous materials:

- The facts of an emergency incident: a voice or data call for help, a crash, unauthorized use, or a route diversion
- Location
- The owner and a 24x7 contact; the insurance company
- Hazardous materials type and volume; truck details
- Treatment instructions
- Cleanup instructions

- Closest responsible emergency response agencies
- Closest commercial response organizations

A growing percentage of hazardous materials carriers have fleet location and communications systems on their trucks and trains, and invariably such companies have automated bill of lading systems. Thus, they have available electronically the hazardous contents and volume on the vehicle, the owner and other relevant data.

Yet this information on hazardous materials is not provided to emergency agencies in real time when there has been an emergency incident. Generally, emergency response agencies, including hazardous materials response teams, have no access to any of the critical data described above until they have reached the scene of the incident. Still, upon arrival, there is no guarantee that the information will be readily available, and it can often be half an hour or more until the appropriate course of action can be determined.

V. The Current HazMat Information Communications System

The ANPRM says “the [Hazardous Materials Regulations] prescribe a system of hazard communication using placards, labels, package markings and shipping papers.”⁸ One of our participants phrased his thoughts and the Group consensus about this regime succinctly:

“The placard system was a huge advance when it was instituted 25 years ago, and it still has great value, but the carriers and shipper companies have certainly changed the way they produce bills of lading and keep track of materials; public safety should also be using and benefiting from these new technologies.”

Commercial carriers of hazardous materials are required to place clearly visible placards on their trucks, designating the type of hazardous materials. There are four basic categories, and over 20 iterations. This rule was initiated for emergency responders to identify and determine the type of substance when responding to an incident. Based on the placard, public safety officials use the Emergency Response Guide Book to determine the properties, and respond accordingly.

The Working Group noted that this system was a vast improvement over what preceded it. However, the members noted a series of weaknesses with the current information system which can put responders and the public at risk, increase the damage that terrorists can do, delay response to incidents (which in turn delays resumption of highway use after incidents), and increase the costs of incidents, including cleanup. These weaknesses can appear along the sequence of events at a hazardous materials incident.

First, an agency must be made aware of an incident believed to involve hazardous materials and must dispatch emergency personnel. They must arrive on the scene and be able to see the placard before that information source is useful.⁹ Second, the placard must be visible; it must be in a position where it can be read, has not been damaged, destroyed, defaced or the vehicle must not be

⁸ ANPRM. FedReg at 46623

⁹ Certainly in some cases the driver reports the incident and he or she has the bill of lading in hand when making the call. But that is less likely in crash situations, and not likely at all in theft or terrorist events.

in a position whereby observation of the placard is impossible. Some carriers do not place the placards on their trucks, and even if there is a placard, it can be easily “flipped” by vandals or terrorists. In addition, placards that do remain on the truck can be thrown from the truck or mixed with other, unused placards, resulting in confusion for emergency responders who are now unable to determine the substance. Another impediment is mixed loads. These can often result in improperly placarded trucks that are confusing to responders. Third, the carrier must be contacted for information relating to the specific type and amount of the substance involved if the shipment papers are not available at the scene. Fourth, contact must be made with ChemTrec, or another expert source, for specific response advice and instructions.¹⁰

Thus, the process of developing full, actionable information can drag on for a significant time after an incident. With our recommendations, all or much of this information could be available at about the same time the initial incident report is received by a public safety answering point.

VI. Discussion and Recommendations

Currently, the hazardous materials transportation industry uses various communications and information technologies with safety and security value. Among these capabilities are two-way data communications (no voice), voice communications, GPS or equivalent location capability, driver verification technologies, geo-fencing, and more. For many of these technologies, there is a capability to transmit the data to third parties during an incident, including multiple public safety agencies. The Working Group broke down the various options into three categories, (a) Technology in the Truck, (b) Data Provided to Emergency Response Agencies Before an Incident, and (c) Data Provided to Emergency Response Agencies Immediately After an Incident. We circulated a survey to Working Group participants and asked them to grade the importance of the various options. We then discussed each in some detail as a group.

A. Specific Comments on Technology Capabilities in Trucks

Currently, more than 125,000 hazardous materials trucks have two-way communications packages, including location and tracking capability. Most of these are data only. While almost all of these were acquired for commercial purposes, the Working Group is in unanimous agreement that these basic packages are extremely helpful, and could be critical, for emergency response and mitigation. In the event of a crash or other incident, emergency responders could work with the carrier or its vendor to communicate with the truck, and at worst, locate its whereabouts. As in any incident that requires a rapid response, emergency alerting and location are of utmost importance. Along with location, this basic capability also delivers the ability to identify the truck owner, and its contents, and to provide geo-fencing (and route exception) services.

Two additional capabilities for which the group voiced strong support are some form of automatic crash notification (ACN) and panic buttons. ACN information would give emergency responders notification as soon as a crash occurred even if no other notice could be provided. It would also provide information on the severity of the collision, including rollover information, the impact of

¹⁰ The placards do not describe the exact hazardous material. We were told that while there are just over 20 iterations of placards, there are 43 million separate Chemical Abstract Service numbers.

the crash, and other data vital for a medical response (in addition to location). ACN is not currently offered by technology vendors as a capability for carriers.¹¹

Additionally, the group noted that other capabilities are useful, but would apply to a more limited set of incidents, specifically, unauthorized use and stolen trucks. These include driver verification technologies, unauthorized movement and tampering alerts, and a remote shut-down capability.

As noted in more detail in Section II, we support and strongly encourage the installation of technology on hazardous materials transportation vehicles which will allow the real time reporting of incidents of various kinds.

B. Data Provided to One or More Emergency Response Agencies Before an Incident

Real-time tracking and pre-notification of hazardous materials transport are two categories of information that safety agencies could receive prior to an incident which are addressed in the ANPRM.

Carriers often have a route plan for their trucks carrying hazardous materials, and could notify agencies in the various jurisdictions through which it would pass about the route. The Group, comprised of public safety officials who would most likely receive the pre-notification, agreed that requiring pre-notification of transportation was not desirable in general because it would overburden them with information. Indeed, they only were interested in considering this for materials that would pose the most dangerous risks to their populations. In general the view was: “Tell me when something bad has happened that I have to deal with, and not before”, as one member stated it.

The Group had a similar opinion of providing emergency response agencies with real-time tracking of hazardous materials trucks before an incident (crash, stolen, route violation, geo-fence violation), although some thought this information might be valuable to national law enforcement personnel for some high risk cargos (as it is today for some nuclear and weapons shipments). Again, they made an exception for extremely hazardous and dangerous substances.

C. Data Provided To One or More Emergency Response Agencies Immediately After an Incident

Once an incident has occurred, assuming the truck has a commercial communications package installed, there are critical data elements that often reside with the technology vendor and carrier which should be delivered. The Group concluded that DOT should require the contemporaneous delivery of critical information to those emergency agencies that have to respond upon the occurrence of an incident. They defined incident as a call for help from the truck or its owner, a crash, a theft, or a similar alarm, such as a geo-fence violation.

¹¹ We note with approval and pride that RSPA’s recently announced Field Operational Test (FOT) using a range of these technologies includes data communications and location systems, and automatic crash notification devices, provided by ComCARE members QUALCOMM and Veridian Engineering, respectively.

“Critical information” includes the location of the truck, a description of it, the owner, the contents and volume information, the shipper, and destination. In essence this is an electronic version of the bill of lading. An electronic version of the Material Safety Data Sheet (MSDS) should also be provided, along with the 24X7 informational telephone number that DOT requires carriers to provide (e.g. ChemTrec’s contact number).

D. Tracking Information Services

We strongly support the basic communications and location packages for another reason. Their location and tracking capabilities allow the provision of additional security information services, albeit for additional costs. These include geo-fencing and route deviation alerts.¹² If companies have these capabilities or services for commercial or other reasons (i.e. an incident report is created), and if there is an incident to which a reasonable person would believe that public agencies will have to respond, then DOT should require that this additional information be provided to response agencies. Otherwise, if government wants geo-fencing or route deviation information, it may have to acquire that extra service itself.

E. Vary by Type of HazMat?

One school of thought is to have differing requirements based on the dangers of the hazardous materials. Our Group agreed with this for certain limited purposes, suggesting that perhaps pre-incident information and/or tracking should be provided for the most dangerous materials. But the Group primarily disagreed with this distinction, believing that whether it is a terrorist or simply a crash, a local fuel oil tanker truck should have the same obligations as a truck carrying more dangerous materials. One participant summarized the rationale for this position as follows:

“It is easier for a terrorist to steal a gasoline truck than a munitions carrier, and there are a lot more of them, so safety agencies face more day to day problems with them, and a greater risk of both a terrorist event and an incident in the normal course of events with them.”

F. Which Entities?

The Group agreed that although the ANPRM is specifically targeted at roadway carriers of hazardous materials, the rules should also apply to other hazardous materials transporters, i.e. rail, air transport, and barges. While the installed equipment might be different, the requirement to deliver incident information in real time should be the same.

¹² Geo-fencing means the drawing of an electronic line on an electronic map which will generate an alert message if a truck (a) goes outside of a circle in which it was required to stay, (b) goes into an area from which it was prohibited, or (c) deviates by some pre-set amount from a route it has previously filed.

VII. Costs and Benefits

A. Non-Safety Benefits and Costs

The Group does not represent itself as an expert on commercial costs and benefits of such information systems. We conducted a survey of providers to determine the range of costs of such systems, and note that hundreds of thousands of trucks have already been equipped with such systems for entirely commercial reasons, of which more than one hundred thousand are licensed to carry hazardous materials. As there has been no linkage to the emergency response system in the vast majority of cases, commercial benefits are clearly the cause for installing these systems. We understand these include more efficient fleet management, “just in time” delivery of products, and truck service and warranty management. The latest systems can measure a truck’s electronics and other systems (e.g. oil, engine temperature) remotely.

The costs for such systems have been in the range of several thousand dollars for installed systems with full data terminals, connected to the electronics of the truck. Much cheaper systems are now coming on the market which provide some or most of the same information capabilities, including GPS-enabled retrofit systems (with or without a panic button and automatic crash notification capabilities), GPS-enabled Personal Digital Assistants, and even cell phones with data and location capability from the Federal Communications Commission’s Enhanced 9-1-1 rules. These sell for a few hundred dollars.

Based on a public survey of technology companies competing in this market, capital and installation costs for communications systems vary widely. A few years ago, there were mostly only high cost choices. That has changed. Capital costs for an in-cab communications systems using terrestrial cellular networks (analog, digital, packet and dedicated data, paging networks, etc.), range from \$400 to \$1,700, with higher-end, satellite based systems ranging from \$2,100 to \$4,000. A Personal Digital Assistant with a wireless capability, a GPS chip, and Internet-based communications and tracking will shortly be available, selling for a few hundred dollars. Depending on the system, monthly costs can range from \$10 to \$100, although monthly service plans are typically driven by the number of messages or amounts of data being transmitted through the network.¹³ Attached is a technology matrix outlining some of these technologies and the associated costs which were reported to us.

B. Safety Benefits and Costs

Many of the technologies described above are already available and have been deployed by various carriers. In general, the carriers see a business benefit to this technology, and have deployed it for those purposes. The Group believes that there are additional benefits to hazardous materials carriers, as well as to safety agencies, insurers, and the public at-large.

¹³ This data is based on a survey we sent to companies in the industry, as well as a Strategis Group report, “AVL and Fleet Communications Marketplace” (2000), and an Allied Business Intelligence (ABI) report, “Fleet Management Systems”, (2002).

1. Benefits to Emergency Response Agencies

No hazmat incident is a private matter. The spread of a dangerous substance is a public health concern, and thus affects the surrounding community. Some of these technologies could assist in preventing events (e.g. geo-fence, truck shut off).

Other technologies would allow a better response and faster clean-up to mitigate the effect on the community. This type of data and additional information, if provided to the appropriate agencies and officials, would enhance and speed response, and thus make the public safer. It would protect first responders themselves, many of whom are volunteers.

Providing more advanced data to public safety would also save money by allowing responding agencies to scale their response, which they generally do not do today. Typically, hazmat teams respond to each incident as though the worst chemical has spilled, and then scale back response accordingly once more information is received. More information would save money for local jurisdictions, and accordingly, save money for insurance companies, shippers, and carriers – which are usually required to reimburse government expenditures.

These are probably the most fundamental and important points. Yet it is probably impossible to quantify this life and injury saving value in a terrorism context. It may be possible to make some projections for such savings in day to day events.

A variety of studies have quantified the economic costs of traffic congestion, and the large role that highway incidents play in creating congestion. There are few highway incidents as spectacularly congestion-creating as a major hazmat incident. Thus, faster response means faster clearing of congestion, which has a material economic value. We suggest that DOT is better positioned to measure that value than our organization.

2. Information Costs

Once the information technologies are installed in trucks, the marginal costs of exporting the data when there is an incident are relatively small. The costs of then delivering and displaying this information for emergency response and security agencies should probably be borne by government. A relatively inexpensive (and initial) way to do this is to send the data in a standardized format to a state or regional incident web site where it can be displayed on an electronic map and shared with all authorized agencies.¹⁴

3. Carriers

While we are not expert on this point, we can offer some thoughts. For hazardous materials companies we believe that providing real time incident information to emergency agencies will have a variety of economic benefits. For the reasons noted in the prior section, it will tend to

¹⁴ Some ComCARE technology members have developed prototypes and products that can accomplish this at relatively low cost. Some of these are being deployed in the Shenandoah Valley, Virginia ITS Public Safety Initiative mentioned in footnote 7.

reduce clean up and theft costs (and thus, should help with carriers' insurance costs), and increase driver safety (and thus help with driver turnover, a major trucking problem).

3. Insurance benefits

Insurance companies should benefit from real-time notice, which would reduce the chance of fraud, and improve the efficiency of their claims operations. Increasing the speed and efficiency of the clean-up, thus causing less damage to the surrounding environment, should save either them or the carriers they insure money. The current state of insurance for terrorist acts is highly unsettled so we cannot address it.


VIII. Which Entities Should Pay?

The Group discussed costs and which entities should pay in five categories as follows:

- a. In vehicle equipment and services. Suggested payor: private sector, with government incentives. Governments should pay for their fleets.
- b. Security services without commercial value: Government should pay
- c. Exporting incident information. Suggested payor: combination of private sector and government
- d. Delivering incident information to emergency agencies. Suggested payor: combination of private sector and government
- e. Displaying incident information it and handling it within agencies. Suggested payor: governments. Of course, any such displays would be used for handling all manner of emergencies, of which hazmat events would be one of the least frequent.

In conclusion, the Group strongly feels that the reporting of critical information about hazardous incidents is crucial to emergency response and mitigation. Installation of such technologies should be strongly encouraged, and hazmat carriers should be required by federal law or regulation to report contemporaneously key information they have about any incident to the relevant responders. Our Group believes that major improvements can be made in homeland security and day to day safety of the public and our emergency responders with modest, but rapid action, building on technologies and systems that are already well established in the hazardous materials and related markets for commercial reasons.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Robert Oenning", is centered on a light blue dotted grid background.

Robert Oenning, Chairman
Hazardous Materials Emergency Communications
Working Group
ComCARE Alliance

Appendix A: ComCARE Alliance Technology Matrix

Communications Technology Options	Description	Capital / Installation Cost	Monthly / Annual Cost for Service *
In-Cab Fleet Management Systems			
Terrestrial-Based In-Cab Fleet Management Systems	Hardware is tethered to the vehicle and can only be used within the cab with the communication being transmitted over terrestrial network such as: <ul style="list-style-type: none"> • Analog (e.g., circuit switched, control channels) or Digital Cellular (e.g, CDMA, TDMA, GSM) • Packet Data (e.g., CDPD, iDEN/Nextel) • Dedicated Data (e.g., DataTAC, Mobitex) • Paging Networks (e.g., Reflex) 	\$600 to \$1,700 per truck	\$11 to \$70 per month per truck
Satellite-Based In-Cab Fleet Management Systems	Hardware is tethered to the vehicle and can only be used within the cab with the communication being transmitted via satellite	\$2,100 to \$4,000 per truck	\$15 to \$50 per month per truck
In-Cab FMS with Portable Focus			
Handheld device (e.g., RIM device, cell phone, PDA) + GPS, connected (“tethered”) to truck	Hardware includes a tethered portion and a mobile portion that use a terrestrial network for communications and may include satellite communications	\$1,200 to \$2,150 per truck	Pricing varies with fixed pricing at \$20 per month for 150 position reports or canned messages; Some companies offer pricing on a per usage basis \$0.53 per minute for voice; \$0.48 per data minute
Handheld device, not tethered to truck (e.g. RIM device, cell phone, PDA with wireless, Nextel) + GPS or equivalent	Hardware is only mobile portion and only uses terrestrial communications	\$100-\$500 per unit	Various voice and data rates from consumer market
Retrofit tracking and event reporting device	Low-end GPS tracking and event reporting, without commercial data communications capability	\$250-\$400 per unit, installed	Internet tracking at \$15 per month per unit

* Monthly service plans are typically driven by the number of messages or the amount of data pushed over the system.

Sources: Technology company websites, and conversations with their staff; The Strategis Group’s report “AVL and Fleet Communications Marketplace” (2000); ABI’s report “Fleet Management Systems” (2002).

Appendix B

Hazmat Emergency Communications Working Group Participant List

Robert Oenning, [Chair]
E9-1-1 Program Administrator
State of Washington

Jim Bo Peele
Chief, Williamston Fire & Rescue (NC)

Paul Einreinhofer
County Communications Officer & 9-1-1
Administrator
Bergen County (NJ) Police

Chris Growley
Battalion Chief, Special Operations
Orange County (FL) Fire Rescue

Joseph McEnulty
Lieutenant, Enforcement Services Division
California Highway Patrol

Kevin McGinnis
Program Advisor
(former state EMS Director, Maine)
National Association of State EMS Directors

Gary DuBrueler
Director
Frederick County (VA) Fire & Rescue

Joseph Hanna
Public Safety Consultant &
Past President, Association of Public-Safety
Communications Officials

Jerry Vebaun
Director
Buncombe Co. (NC) Emergency Management
[Past President, International Association of
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Craig Whittington
Communications Manager
Guilford County (NC) Emergency Services

John Donahue
Associate Director
Maryland Institute of EMS

Dr. Angelo Salvucci
Chairman
California EMS Commission

LA Griffin
Manager, Expressway Operations
Orlando-Orange County (FL) Expressway
Authority

ComCARE Staff: Siddhartha Vivek

Appendix C



ComCARE Alliance

COMMUNICATIONS FOR COORDINATED ASSISTANCE AND RESPONSE TO EMERGENCIES

Medical, Public Safety and Government Members

Academy of Medical-Surgical Nurses
Air & Surface Transportation Nurses Association
American Association for the Surgery of Trauma
American Association of Critical-Care Nurses
American Association of Nurse Anesthetists
American Burn Association
American College of Emergency Physicians*
American Heart Association
American Public Health Association
Assoc. of Women's Health, Obstetric and Neonatal Nurses
Brain Injury Association
City and County of Denver
Coalition for American Trauma Care*
Eastern Association for the Surgery of Trauma
Emergency Information Infrastructure Project
Emergency Nurses Association*
Fraternal Order of Police
Indiana Wireless Enhanced 911 Advisory Board
International Association of Emergency Managers*
International Brain Injury Association
John Jane Brain Injury Center
Journal of Trauma
Los Angeles County (CA) Sheriff's Department
Mothers Against Drunk Driving (MADD)
National Academies of Emergency Dispatch

National Association of EMS Physicians (NAEMSP)*
National Association of EMTs
National Association of Governor's Highway Safety
Representatives
National Association of Orthopedic Nurses
National Association of State EMS Directors
National Association of State Nine-One-One Administrators (NASNA)*
National Brain Injury Research, Treatment and Training Foundation*
National Conf. of States on Building Codes and Standards
National Flight Nurses Association
National Volunteer Fire Council
North American EMS Employee Organization Network
Orange County (FL) Fire/Rescue Department
Orthopaedic Trauma Association
Partnership for Public Warning
Professional EMTs and Paramedics
Society of Pediatric Nurses
Tennessee Emergency Communications Board
University Transportation Center for Alabama
Virginia Department of Transportation (VDOT)
Virginia Division of Public Safety Communications
WSU Center to Bridge the Digital Divide

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